EPILOGUE

The history of the Louisville District, Corps of Engineers, United States Army, did not end in 1975. As a matter of fact, the environmental preservation movement and the comprehensive development program were expanding the District mission and perspective and having considerable impact on District operations.

Environmental Focus

Concern for the preservation of environmental quality, or, as the expression went, the "ecology bag," gripped the attention of Americans during the late 1960s and early 1970s. Deteriorating water quality, air pollution, industrial waste, urban sprawl, and other problems confronting a technologically-advanced society were subjects of great public concern during the era. The environmental preservation movement was closely tied to a concurrent questioning of old values, of the equation of industrial and economic development and growth with progress in particular. The Army Engineers, who had previously thought of themselves, because of their attention to the scientific management of natural resources, as being in the forefront of the conservation movement, were surprised to find their organization under attack, accused of having a "beaver complex," of conjuring up "make-work" projects and destroying the natural environment with the water resource development program.

The predecessors of the environmental-preservationists were the conservationists of the early twentieth century who fought for the creation of a national park and forest reserve system to preserve the natural wonders and timber resources of America. But conservation of water resources at the turn of the century commonly meant conserving water behind dams to prevent floods and to put it to use for social and economic purposes, rather than letting it go to waste in annual floods. What the environmentalists actually did in the 1960s was extend the meaning of "conservation" as it had been originally applied to forest-land resources to water resources. The environmentalists of the 1960s resorted to legal action and public protests to bring suspension or reassessment of various water resource projects. Such action against two projects in the Louisville Distrit — the Red River Reservoir in the Kentucky River Basin and the Big Walnut Reservoir in the Wabash Basin — received wide coverage in the national news media.[1]

A review of the "Big Walnut Flap" will illustrate the character of the conflict. Big Walnut reservoir project, on Big Walnut Creek of Eel River, a tributary of the White River in central Indiana, was essentially an outgrowth of the comprehensive planning studies of the Wabash Basin performed by an interagency committee representing ten federal and state agencies during the 1960s. The Wabash Basin Coordinating Committee reported the Big Walnut project would reduce annual flood damages, provide additional water supply for the Indianapolis metropolitan area, improve water quality on Big Walnut Creek and Eel River, and furnish needed recreational opportunities. Testimony at public hearings on the proposed project indicated the usual "upstream" opposition in the project area, Putnam County, Indiana, was not appreciable, and, instead, citizens of the area overwhelmingly supported the project.[2]

Twenty-four project sites were examined, and a site near Greencastle, In-

diana, was selected for engineering and economic reasons. Several ecologically unique features were extant — an unusual timber stand and a blue heron rookery — and to facilitate study and use of these features a nature center, arboretum, canoe-launching ramps, paths for aquatic and forest interpretation, pioneer history museum, and watchtowers for observation of the rookery without distrubing the habitat were included as part of the project plans. Environmentalists maintained these features were not adequate; that too much of the area would be inundated at times by the reservoir; and about 1967 they launched a campaign to stop the project. Congress conditionally approved the Big Walnut project in 1968; and the Louisville District organized a Task Group, consisting chiefly of independent experts, to study the extent the project would damage ecological features and recommend alternative project sites or other methods of preserving the unique natural environment.[3]

The Task Group recommended in 1972 that the project damsite be moved about three and a half miles downstream and several additional management measures be adopted to reduce environmental damages. One of the more important recommendations of the Task Group was that representatives of environmentalist groups be included in project planning for natural areas. At a public hearing at Greencastle, Indiana, on January 18, 1972, environmentalists indicated their qualified approval of the Task Group recommendations. Thomas E. Dustin of the Izaak Walton League, a leader of opposition to the project, said:

> In conclusion, we would note that for all of the controversy that has surrounded the Big Walnut project, the prospects have been considerably altered. From a project that could probably have been stopped for many years, and perhaps permanently, it could well emerge as one of the few Wabash basin proposals that has any prospect of implementation in the foreseeable future.[4]

By 1970 the Louisville District was committed to full consideration of environmental features at every project, and involving representatives of environmentalists groups in project planning wherever appropriate. This commitment reflected a similar commitment of the Corps at the national level. Congressional legislation and Presidential orders had established governing environmental guidelines for the Corps civil works program, which were published in 1970, and General Frederick J. Clarke, Chief of Engineers, established an Environmental Advisory Board in 1970, to represent environmentalist groups, and met with it across the country — once in Louisville — on a regular basis. General Clarke summarized the reorientation of the Corps civil works program in 1971:

> Our efforts in the Civil Works Program are changing somewhat in emphasis to reflect the public's growing desire that the development of our natural resources for economic benefits no longer be the sole criteria for our work. Rather, people seem willing to forego, or to pay more for, their immediate needs so that the quality of their environment may be preserved and enhanced for the future. In that light, environmental values are now being given full consideration along with economic, technical, social and other factors when we study alternate means of meeting human demands. We are attempting to keep resource options open for future generations as far as it is possible to do so.[5]

It was evident in 1975 that the protection of environmental quality through water-pollution reduction, improved waste-water management, environmental consideration in water resource planning, and related measures would become another primary mission of the Army Corps of Engineers and the Louisville

Engineer District.

Comprehensive Water Resource Planning

The basin-wide planning programs of the Corps must consider environmental impact, engineering efficiency, economical use of available capital, and related factors in planning water resource development to meet present and projected human needs. Corps plans must reconcile these elements in such a manner that proposed projects will be acceptable to an overwhelming majority of Americans. And as water-user demands and conflicts have grown, the problem of coordinating many desirable project purposes within the framework of basin and national water-resource development programs has become increasingly complex.

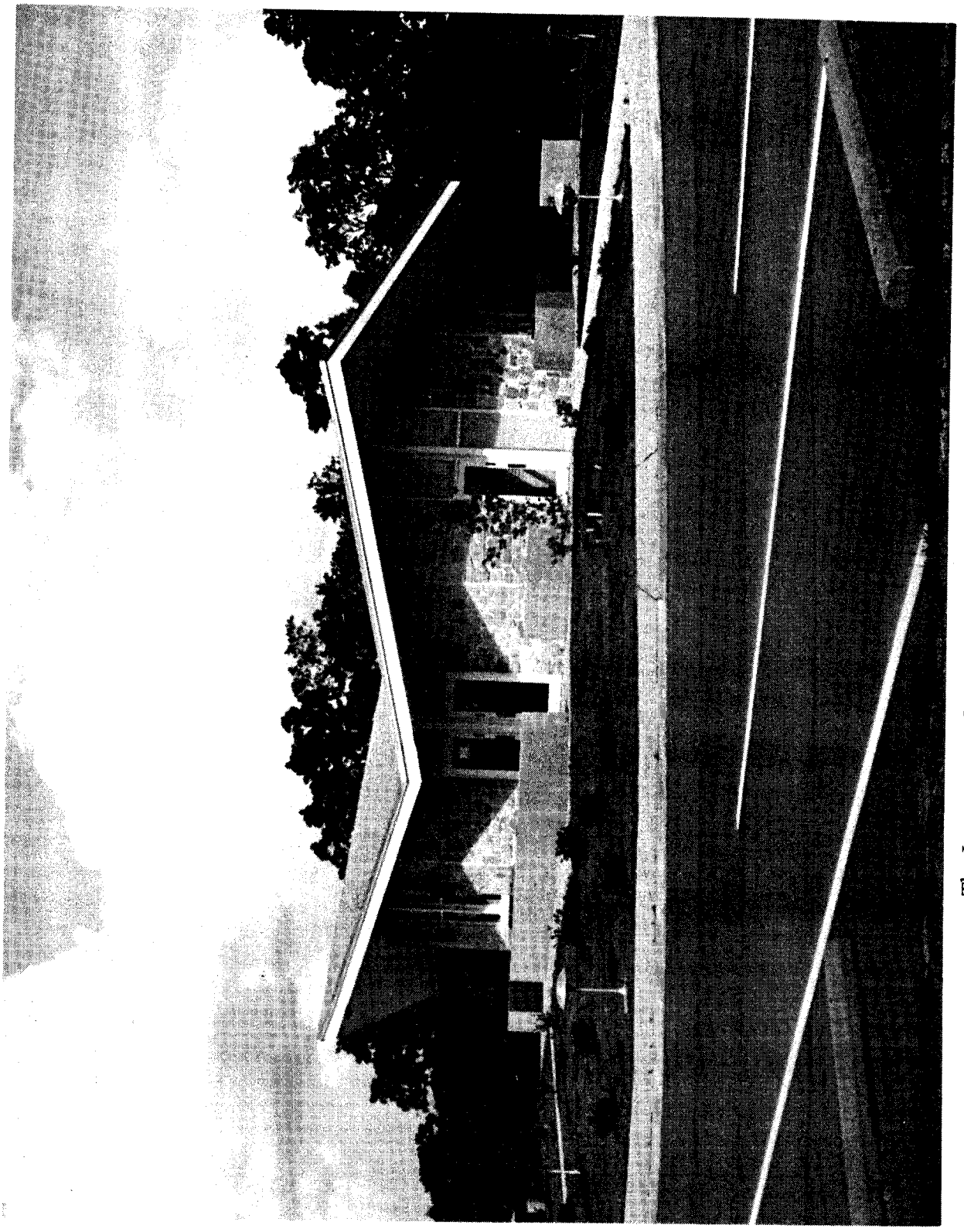
During the 1960s the Louisville District participated in three major comprehensive planning programs. The Wabash River Basin Comprehensive Survey and the Ohio River Basin Comprehensive Survey assessed the trends in water resource management, developed projections of future water needs in the basins under study, and recommended water and related land resource developments which would assure optimum contributions to the environmental, economic, regional, and social well-being of the population of the basins. These studies operated on a premise that well-planned water resource development would foster a balanced industrial and agricultural economy, providing greater employment opportunities in those basins, and thereby alleviate some of the problems of population concentration in already urbanized and industrialized areas.[6]

The Appalachian Water Resources Survey, authorized in 1965 and completed in 1968, was based on the same premise, as indicated by the authorizing act which directed the Corps Engineers to: "prepare a comprehensive plan for the development and efficient utilization of the water and related resources of the Appalachian region, giving special attention to the need for an increase in the production of economic goods and services within the region as a means of expanding economic opportunities and thus enhancing the welfare of its people . . . ."[7]

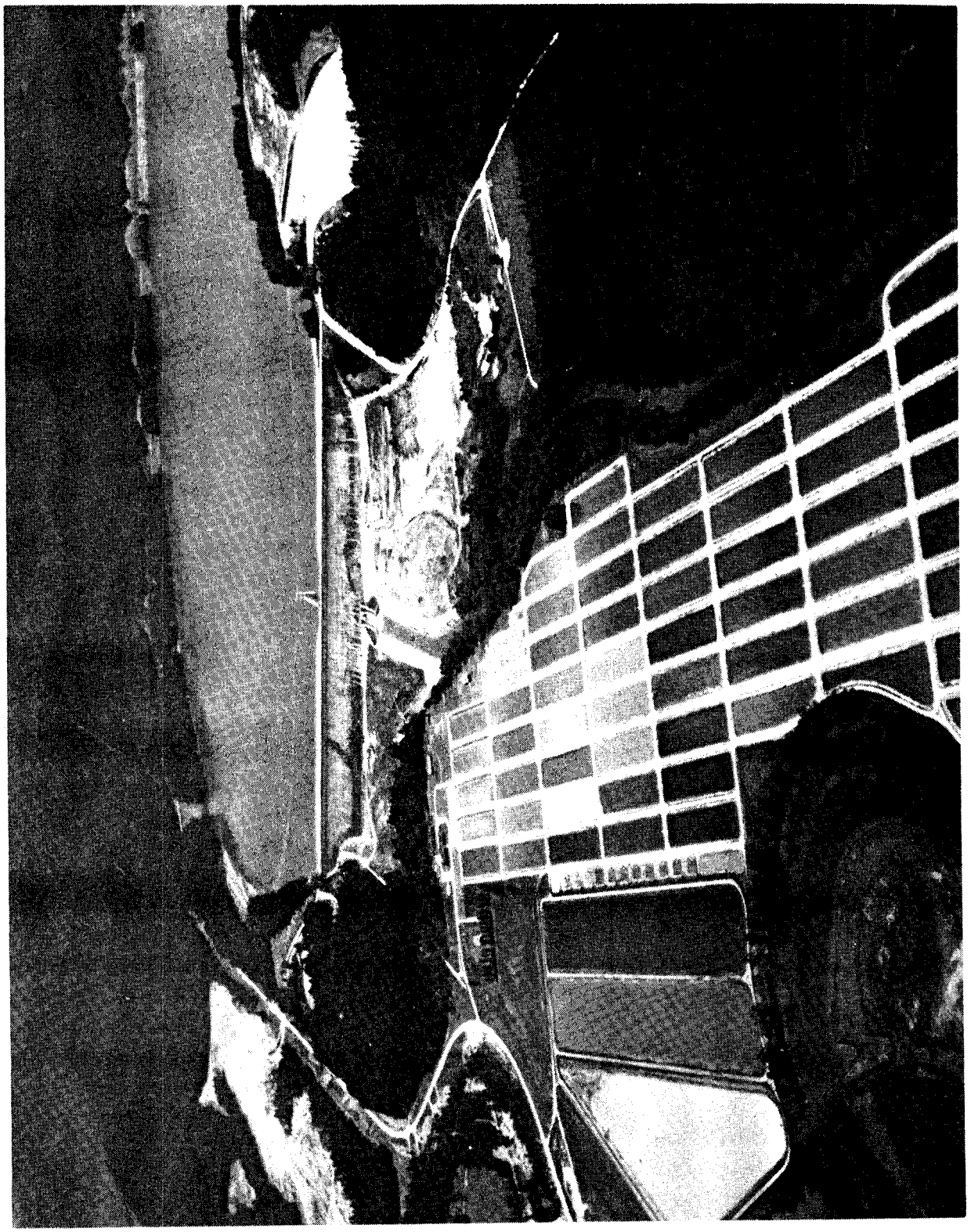
The history of the Louisville District and its civil works program indicated that industries were attracted to the Lower Ohio Basin by flood protection, increased water supply, economical waterways transportation, and other elements of the Corps water-resource development program, but assessing the total changes in the socio-economic environment of the region resulting from the Corps program was a complex problem. The question could be asked: "What would the Lower Ohio Basin be like in 1975 if the Louisville Engineer District and its predecessors, as agencies of the federal government and therefore the people of the United States, had not improved navigation, constructed flood control projects, and implemented other water-resource programs?" Answers would doubtless be diverse, depending upon the philosophy of the individual responding, but most, if not all, would concede that the region would have severe social and economic problems. How severe was an imponderable which has thus far defied analysis, but methods of assessing the total effects of water resource development were under study in 1975.

Conclusion

When George Washington, Thomas Hutchins, and other Army Engineers first visited the Ohio Valley on military and topographic missions in the eighteenth cen-



The Interpretative Center, Green River Lake, Kentucky



The Minor E. Clark Fish Hatchery adjacent to Cave Run Lake, Kentucky

tury, every river in the basin was a wild and scenic stream, unnavigable for lengthy periods during each year and a source of periodic floods. After Americans settled the region and utilized the waterways for commercial navigation, they demanded the rivers be made more navigable; and in 1824 Congress authorized a program to improve navigation and assigned the mission to the Corps of Engineers, United States Army. This mission was later expanded to include several Ohio River tributaries and, during the twentieth century, the transformation of the Ohio River into a dependable watercourse by the canalization and subsequent navigation modernization projects.

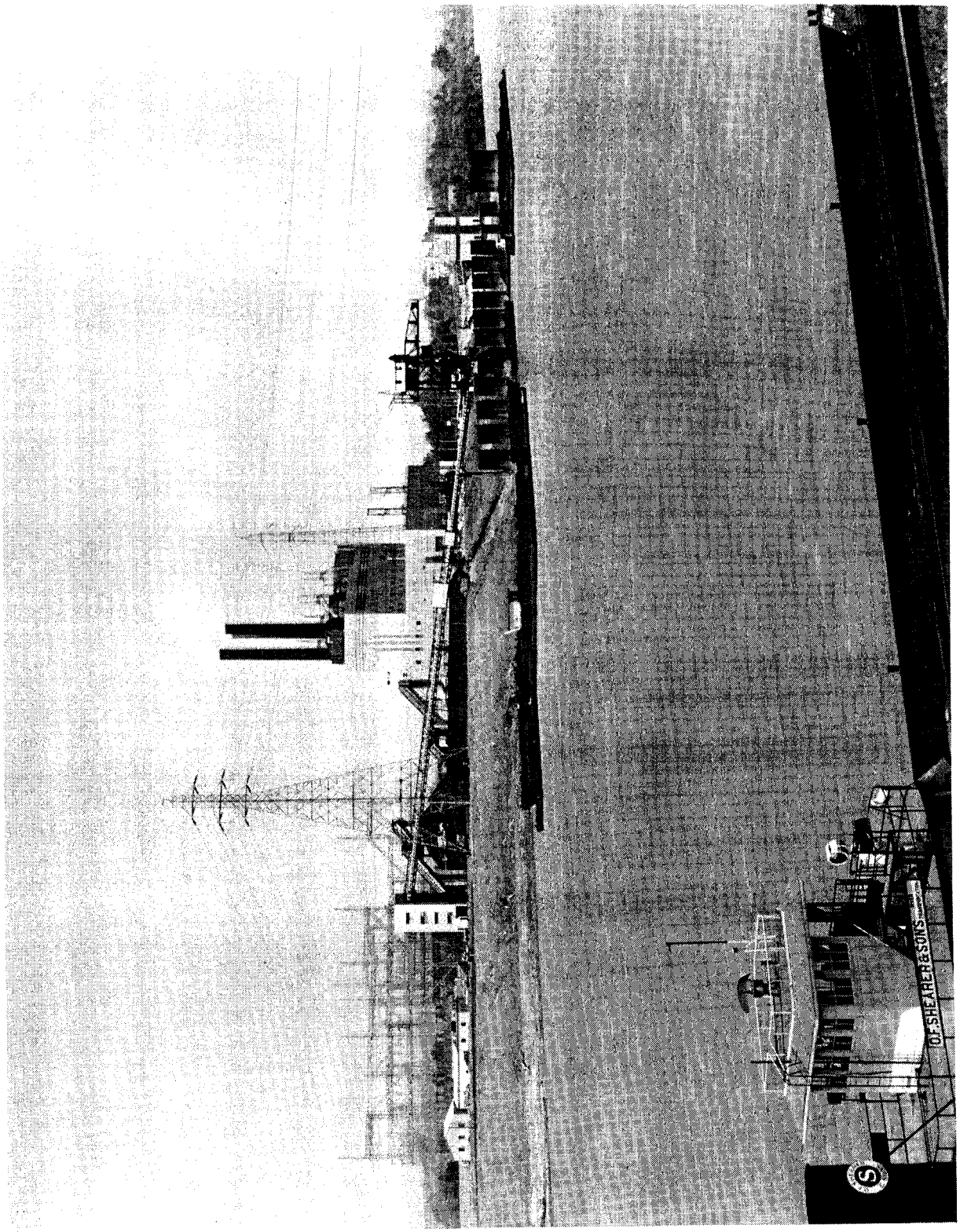
The first settlers in the Ohio Basin were prone to accept recurring floods philosophically, viewing them as acts of God about which little could be done, but as population increased and development in the flood plains grew flood damages increased proportionately and the people of the Basin began to demand effective measures to control floods and reduce their damages. The Army Engineers in the Ohio Valley were authorized to implement a large-scale flood control program in 1936. Other water uses were later recognized and the original flood control program was modified to provide for a multitude of water uses, which encompassed in 1975 so many different purposes that comprehensive water resource development, rather than flood control, was a more appropriate description of the Corps civil works program.

Thus, over a period of about two centuries, the original military mission of the Army Engineers in the Ohio Valley was expanded to include several primary civil works missions: navigation improvement, flood control, and multipurpose water resource development. By 1975 it was also evident that the Corps had a fifth primary mission: the preservation and improvement of environmental quality.

These multifaceted missions made the operations of the Louisville District in 1975 extremely complex. In the nineteenth century the history of Army Engineer activities in the Ohio Valley was largely the story of outstanding individuals, like Colonel Stephen H. Long, Captain John Sanders, Captain Henry M. Shreve, Colonel William E. Merrill, and General Godrey Weitzel, aided by small staffs and hired labor forces; by 1975 that history was largely the history of an institution and the historian could discuss the activities of the "district," confident that it would be clearly understood that the term encompassed the cooperative contributions of a large number of personnel. The Louisville District in 1975 included personnel trained in all major branches of engineering as well as specialized subdivisions, and scientists, technicians, and experts in many other fields, in addition to the hundreds of employees performing the normal operation and maintenance activities at locks, dams, reservoirs, and other installations.

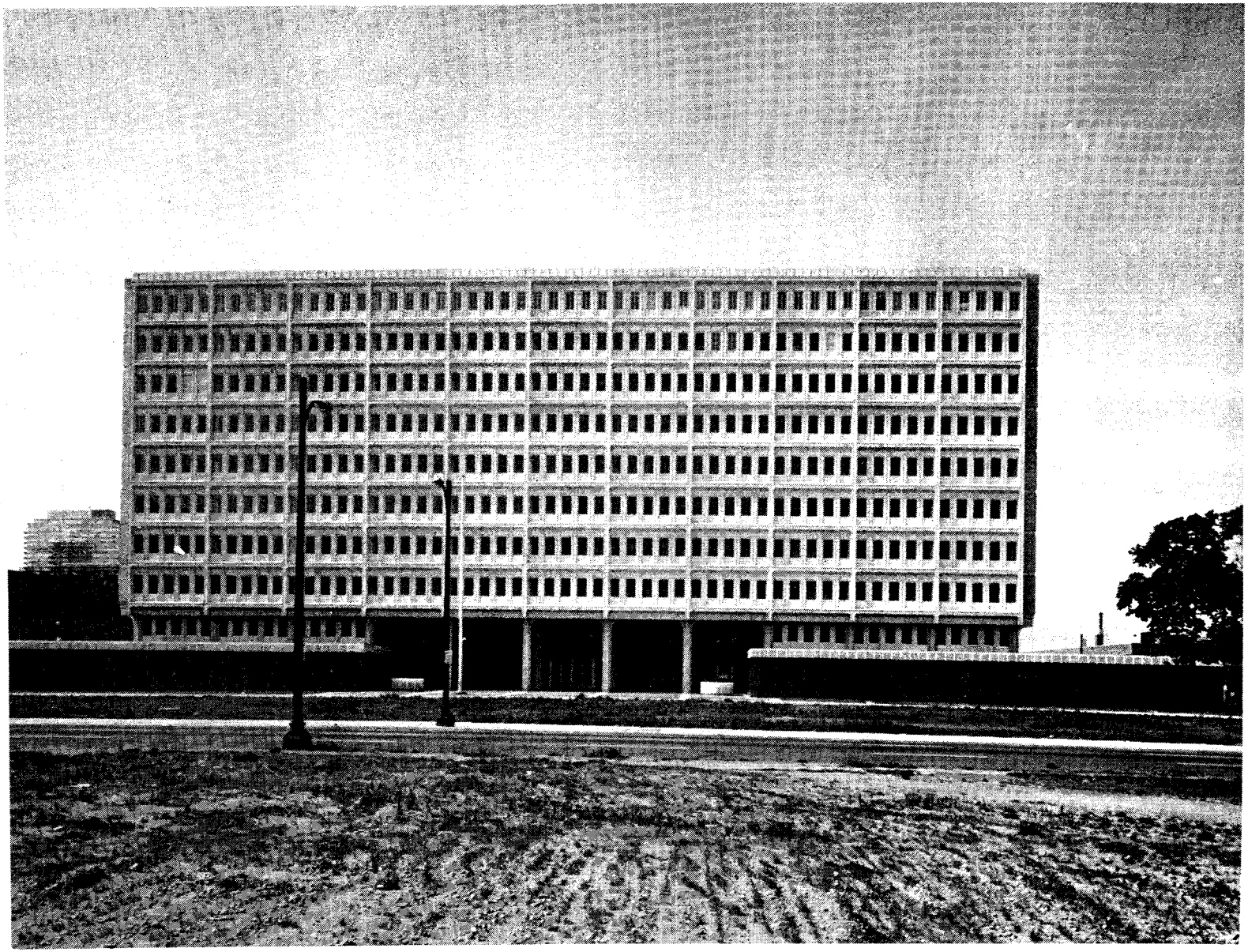
It should be noted, however, that the number of District employees was less than it had been at previous periods, such as the era when large numbers of laborers were employed for the construction of Locks and Dams Nos. 41-53. This had been accomplished by resorting to contracts for most of the construction work, increased use of electronic computers, and administrative and operational centralization, reflecting developments which were Corps-wide and which were also characteristic of many other institutions in the late twentieth century.

Because the Louisville Engineer District ordinarily designed and built water-



River Industry on the Ohio River

ways and water resource projects with a projected life-span of fifty years or more, it was actually planning and building in 1975 to meet the needs of the Lower Ohio Basin in 2020 A. D. And it had no fear of the future, for during the two centuries the Army Engineers had operated in the Ohio River Basin they served a viable and continuing need of the citizens of the United States for an engineering-construction agency which could respond effectively to demands for either defense construction or water resource development as circumstances required.



The Federal Building at Louisville
Engineer District Headquarters